	Application No.	Applicant(s)
Office Action Summary	09/756,232	LE ET AL.
	Examiner	Art Unit	
	JEAN M. CORRIELUS	2162	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 April 2009</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-15,17,19,21-30,32-40 and 42-72</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15, 17, 19, 21-30, 32-40 and 42-72</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☒ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. <u>06/30/2009</u>.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to the amendment filed on April 22, 2009, in which

claims 1-15, 17, 19, 21-30, 32-40 and 42-72 are presented for further examination.

PROPOSED EXAMINER'S AMENDMENT

2.   An examiner's amendment to the record appears below.

        The proposed examiner's amendment below was discussed in a telephone interview with

Gordon Huang on June 30, 2009.

        The application has been amended as follows:

        1. (Currently Amended) A method for header compression, comprising:

        communicating packet header information;

        comparing, at a communication device, a current item list containing a plurality of

current items of said packet header with a reference item list containing a plurality of reference

items, wherein said comparing determines a difference between said current item list and said

reference item list;

        determining a type of classification of the current item list based on said comparing of the

items of the current item list and the reference item list, wherein said type of classification is

based on at least one of: whether an item in said reference item list is in said current item list,

whether said item is in said reference item list and whether contents of said item in said current

item list are the same as contents of said item in said reference item list; and

encoding said information regarding said difference prior to sending said information from said first entity to said second entity;

wherein encoding said information comprises a combination of at least two of the following: encoding information regarding a position of a newly added item to said reference item list; encoding information regarding which item in said reference item list is not in said current item list; and encoding information regarding content of at least one item in said reference item list; and

using the determined type of classification to control the communication and compression of the packet header information, wherein the classification of the current item list associates the current item list with at least one of a plurality of different predetermined encoding schemes.

2. (Canceled)

3. (Currently Amended) The method of ~~claim 2~~ claim 1, wherein the communication of the information further comprises sending information regarding said difference from a first entity to a second entity.

4. (Canceled)

5. (Currently Amended) The method of ~~claim 4~~ claim 1, wherein encoding said information comprises encoding information regarding a position of a newly added item to said reference item list.

6. (Currently Amended) The method of ~~claim 4~~ claim 1, wherein encoding said information comprises encoding information regarding which item in said reference item list is not in said current item list.

7. (Currently Amended) The method of ~~claim 4~~ claim 1, wherein encoding said information comprises encoding information regarding content of at least one item in said reference item list.

8. (Canceled)

15. (Canceled)

19. (Currently Amended) A method for header compression, comprising:

classifying a current item list containing a plurality of items of a packet header by comparing, at a communication device, the current item list with a reference item list containing a plurality of items, wherein said comparing determines a difference between said current item list and said reference item list;

determining a type of classification of the current item list based on said comparing of the items of the current item list with the reference list, wherein the classification of the current item list associates the current item list with at least one of a plurality of different predetermined encoding schemes, wherein said type of classification is based on at least one of: whether an item in said reference item list is in said current item list, whether said item is in said reference item list and whether contents of said item in said current item list are the same as contents of said item in said reference item list; ~~and~~

based upon the classifying of the at least one item of the current item list, forming a compressed list including said at least one item, wherein said compressed list includes information regarding a difference between a current item list and a reference item list;

encoding said information regarding said difference within said compressed list based on said classifying prior to transmitting said information from said first entity to said second entity;
and

transmitting said compressed list as a compressed packet header.

21. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Currently Amended) The method of ~~claim 25~~ claim 19, wherein encoding said information comprises encoding information regarding a position of a newly added item to said reference item list.

27. (Currently Amended) The method of ~~claim 25~~ claim 19, wherein encoding said information comprises encoding information regarding which item in said reference item list is not in said current item list.

28. (Currently Amended) The method of ~~claim 25~~ claim 19, wherein encoding said information comprises information regarding content of at least one item in said reference item list.

29. (Currently Amended) The method of ~~claim 25~~ claim 19, wherein said information comprises a type of encoding.

32. (Currently Amended) An apparatus, comprising:

a processor configured to compare a current item list containing a plurality of current items of a packet header with a reference item list containing a plurality of reference items, wherein said comparing determines a difference between said current item list and said reference item list, to determine a type of classification of the current item list based on said comparing of the items of the current item list and the reference item list, wherein said type of classification is based on at least one of: whether an item in said reference item list is in said current item list,

whether said item is in said reference item list and whether contents of said item in said current

item list are the same as contents of said item in said reference item list, an encoder configured to

encode said information regarding said difference prior to transmitting said information from

said apparatus to said another entity based on said determined type of classification, and to

transmit ~~communicate~~ compressed information based upon the determined type of classification,

wherein the classification of the current list associates items in the current item list with at least

one of a plurality of different predetermined encoding schemes.

33. (Canceled)

34. (Currently Amended) The apparatus of ~~claim 33~~ claim 32, further comprising a

transmitter configured to transmit information regarding said difference from said apparatus to

another entity.

35. (Canceled)

38. (Canceled)

39. (Canceled)

40. (Currently Amended) An apparatus, comprising:

a processor configured to classify at least one item of a current item list containing a

plurality of items of a packet header by comparing the current item list with a reference item list

containing a plurality of items and based upon the classifying of the at least one item of the

current item list to form a compressed list including said at least one item, wherein said

comparing determines a difference between said current item list and said reference item list,

wherein said processor is configured to determine a type of classification of the current item list

based on said comparing, wherein said type of classification is based on at least one of: whether

an item in said reference item list is in said current item list, whether said item is in said

reference item list and whether contents of said item in said current item list are the same as

contents of said item in said reference item list, an encoder configured to encode said

information regarding said difference prior to transmitting said information from said apparatus

to said another entity based on said determined type of classification, and wherein the

classification of the current item list associates the current item list with at least one of a plurality

of different predetermined encoding schemes, an encoder configured to encode said information

regarding said difference within said compressed list prior to transmitting said information from

said apparatus to said another entity based on said determined type of classification, wherein said

encoder is configured to perform a combination of at least two of the following: encoding

information regarding a position of a newly added item to said reference item list; encoding

information regarding which item in said reference item list is not in said current item list; and

encoding information regarding content of at least one item in said reference item list; and

a transmitter configured to transmit said compressed list,

42. (Canceled)

43. (Currently Amended) The apparatus of ~~claim 42~~ claim 40, wherein said transmitter is configured to transmit information regarding said difference between said current item list and said reference item list from said apparatus to another entity.

44. (Canceled)

45. (Currently Amended) The apparatus of ~~claim 44~~ claim 40, wherein said encoder is configured to encode information regarding a position of a newly added item to said reference item list.

46. (Currently Amended) The apparatus of ~~claim 44~~ claim 40, wherein said encoder is configured to encode information regarding which item in said reference item list is not in said current item list.

47. (Currently Amended) The apparatus of ~~claim 44~~ claim 40, wherein said encoder is configured to encode information regarding content of at least one item in said reference item list.

48. (Canceled)

51. (Currently Amended) An apparatus, comprising:

comparing means for comparing a current item list containing a plurality of current items

of a packet header with a reference item list containing a plurality of reference items, wherein

said comparing determines a difference between said current item list and said reference item

list;

determining means for determining a type of classification of the current item list based

on a comparing of the items of the current item list and the reference item list, wherein said type

of classification is based on at least one of: whether an item in said reference item list is in said

current item list, whether said item is in said reference item list and whether contents of said item

in said current item list are the same as contents of said item in said reference item list, an

encoder configured to encode said information regarding said difference prior to transmitting

said information from said apparatus to said another entity based on said determined type of

classification;

encoding means for encoding said information regarding said difference within said

compressed list prior to transmitting said information from said apparatus to said another entity

based on said determined type of classification, wherein said encoding performs a combination

of at least two of the following: encoding information regarding a position of a newly added item

to said reference item list; encoding information regarding which item in said reference item list

is not in said current item list; and encoding information regarding content of at least one item in

said reference item list and

communicating means for communicating compressed packet header information based

upon a determined type of classification, wherein the classification of the current item list

associates the current item list with at least one of a plurality of different predetermined encoding

schemes.

Same amendment will be added to all other independent

claims.

Response to Amendment

3.   The amendment filed on April 22, 2009 has been considered as to the merits.

Response to Arguments

4.   Applicant's arguments filed on April 22, 2009 have been fully considered but are moot in

view of the new ground(s) of rejection necessitated by amendment.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7.   Claims 1-3, 14, 15, 19, 21, 22, 30, 32-34, 40, 42-43 and 51-72 are rejected under 35

U.S.C. 103(a) as being unpatentable over Holmes US Patent no. 5,864,860 and Venters et al.,

(hereinafter "Venters") US Patent no. 5,579,316.

As to claim 1, Holmes discloses analogous method of comparing the data items in the

corresponding fields of the immediately preceding record with the data item in the current field.

Holmes discloses a plurality of records (col.2, lines 8-9), wherein each record includes a list of

fields, which refer as a list of item list. Stores a first record (record 1) received by a user, wherein

record 1 contains a item list (***XXX, YYY, ZZZ***), so when a second record is received *(**AAA, …,**

BBB), the item list in the current record in the second record is compared with item list of the

first record. Such second record is a reference item list. If the item list does not match, as in

record 2, then the data item YYY is replaced by a token *"..."* would be identified to yield a

decompressed*.* So the token is sent as indication of the comparison, so called classification type,

see col.5, lines 48-57. In addition, Holmes discloses a plurality of records (col.2, lines 8-9), so

called ***references items***, and a current of record (col.2, lines 11-12), which is *a current item*.

Holmes compares each data item in the current record, with each data item in the previous record

(see col.2, lines 13-14) to determine whether there is a change, similarly to the claimed

"***comparing a current item list containing a plurality of current items with a reference item list***

containing a plurality of reference items". Such determination of Holmes, whether there is a

change, represents a classification type (see col.2, lines 13-14), see claimed *"**determining a type**

of classification based on said comparing of the items of the lists". Holmes uses the matching

data fields to modify the current record by a token indicating the match *(using the determined*

type of classification to control the communication and compression of the information) for

the purpose of alleviating the cost of maintaining and replicating structure data. Similarly to

description provided by the Applicant in the specification, page 3, lines 2-5, wherein the

classification is based on whether the contents of the item in the current item list are the same as

content as contents of the item in the reference item list.

      Holmes fails to explicitly communicate header information. However, Holmes defines

the information from the database to send a query to a server and retrieve the data record

matches the criteria set out in the database query and use that data record to perform the

compression method (see col.4, lines 6-26).

      Venters, on the other hand, discloses an analogous system that communicates header

information for efficiently transmitting a limited size data frame over a digital communication

network, as evidence to Venters (US Patent no. 5,579,316) (see col.6, lines 51-60). Therefore, it

would have been obvious to one having ordinary skill in the art at the time the invention was

made to modify Holmes' system by transmitting the well known header information as disclosed

by Venters (col.6, lines 51-60), because such of header information would make it possible to

one having ordinary skill in the art to efficiently minimize the number of bits that would

otherwise have to be transmitted in each network data frame.

As to claim19, Holmes discloses analogous method of comparing the data items in the

corresponding fields of the immediately preceding record with the data item in the current field.

Holmes discloses a plurality of records (col.2, lines 8-9), wherein each record includes a list of

fields, which refer as a list of item list. Stores a first record (record 1) received by a user, wherein

record 1 contains a item list (***XXX, YYY, ZZZ***), so when a second record is received ***(AAA, …,***

BBB), the item list in the current record in the second record is compared with item list of the

first record. Such second record is a reference item list. If the item list does not match, as in

record 2, then the data item YYY is replaced by a token *"..."* would be identified to yield a

decompressed. So the token is sent as indication of the comparison, so called classification type,

see col.5, lines 48-57). In addition, Holmes discloses a plurality of records (col.2, lines 8-9), so

called ***references items***, and a current of record (col.2, lines 11-12), which is ***a current item***.

Holmes compares each data item in the current record, with each data item in the previous record

(see col.2, lines 13-14) to determine whether there is a change, which is "***comparing a current***

item list containing a plurality of current items with a reference item list containing a plurality

of reference items". Such determination of Holmes whether there is a change represents the

classification type (see col.2, lines 13-14) ***"determining a type of classification based on said***

comparing of the items of the lists". Holmes uses the matching data fields to modify the current

record by a token indicating the match ***(using the determined type of classification to control***

the communication and compression of the information) for the purpose of alleviating the cost

of maintaining and replicating structure data. Similarly to description provided in the

specification, page 3, lines 2-5, wherein the classification is based on whether an item in the

reference item list is in the current item list, or whether the item is in the reference item list and

the whether the contents of the item in the current item list are the same as content as contents of

the item in the reference item list. Holmes fails to explicitly communicate header information.

However, Holmes defines the information from the database to send a query to a server and

retrieve the data record matches the criteria set out in the database query and use that data record

to perform the compression method (see col.4, lines 6-26). Venters, on the other hand, discloses

an analogous system that communicates header information for efficiently transmitting a limited

size data frame over a digital communication network, as evidence to Venters (US Patent no.

5,579,316) (see col.6, lines 51-60). Therefore, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to modify Holmes' system by

transmitting the well known header information as disclosed by Venters (col.6, lines 51-60),

because such of header information would make it possible to one having ordinary skill in the art

to efficiently minimize the number of bits that would otherwise have to be transmitted in each

network data frame.

As to claim 32, Holmes discloses analogous method of comparing the data items in the

corresponding fields of the immediately preceding record with the data item in the current field.

Holmes discloses a plurality of records (col.2, lines 8-9), wherein each record includes a list of

fields, which refer as a list of item list. Stores a first record (record 1) received by a user, wherein

record 1 contains a item list (*XXX, YYY, ZZZ*), so when a second record is received *(AAA, …,*

BBB), the item list in the current record in the second record is compared with item list of the

first record. Such second record is a reference item list. If the item list does not match, as in

record 2, then the data item YYY is replaced by a token *"..."* would be identified to yield a

decompressed. So the token is sent as indication of the comparison, so called classification type,

see col.5, lines 48-57. In addition, Holmes discloses a plurality of records (col.2, lines 11-12),

which is *a current item*. Holmes compares each data item in the current record, with each data

item in the previous record (see col.2, lines 13-14) to determine whether there is a change, which

is "*comparing a current item list containing a plurality of current items with a reference item

list containing a plurality of reference items".* Such determination of Holmes represents a

classification type (see col.2, lines 13-14) *"determining a type of classification based on said

comparing of the items of the lists".* Holmes uses the matching data fields to modify the current

record by a token indicating the match *(using the determined type of classification to control

the communication and compression of the information)* for the purpose of alleviating the cost

of maintaining and replicating structure data. Similarly to description provided in the

specification, page 3, lines 2-5, wherein the classification is based on whether an item in the

reference item list is in the current item list, or whether the item is in the reference item list and

the whether the contents of the item in the current item list are the same as content as contents of

the item in the reference item list. Holmes fails to explicitly communicate header information.

However, Holmes defines the information from the database to send a query to a server and

retrieve the data record matches the criteria set out in the database query and use that data record

to perform the compression method (see col.4, lines 6-26). Venters, on the other hand, discloses

an analogous system that communicates header information for efficiently transmitting a limited

size data frame over a digital communication network, as evidence to Venters (US Patent no.

5,579,316) (see col.6, lines 51-60). Therefore, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to modify Holmes' system by

transmitting the well known header information as disclosed by Venters (col.6, lines 51-60),

because such of header information would make it possible to one having ordinary skill in the art

to efficiently minimize the number of bits that would otherwise have to be transmitted in each

network data frame.

As to claim 40, Holmes discloses analogous method of comparing the data items in the

corresponding fields of the immediately preceding record with the data item in the current field.

Holmes discloses a plurality of records (col.2, lines 8-9), wherein each record includes a list of

fields, which refer as a list of item list. Stores a first record (record 1) received by a user, wherein

record 1 contains a item list (***XXX, YYY, ZZZ***), so when a second record is received *(AAA, …,*

BBB), the item list in the current record in the second record is compared with item list of the

first record. Such second record is a reference item list. If the item list does not match, as in

record 2, then the data item YYY is replaced by a token *"..."* would be identified to yield a

decompressed. So the token is sent as indication of the comparison, so called classification type,

see col.5, lines 48-57). In addition, Holmes discloses a plurality of records (col.2, lines 11-12),

which is *a current item*. Holmes compares each data item in the current record, with each data

item in the previous record (see col.2, lines 13-14) to determine whether there is a change, which

is "*comparing a current item list containing a plurality of current items with a reference item*

list containing a plurality of reference items". Such determination of Holmes represents the

classification type (see col.2, lines 13-14) *"determining a type of classification based on said*

comparing of the items of the lists". Holmes uses the matching data fields to modify the current

record by a token indicating the match *(using the determined type of classification to control*

the communication and compression of the information) for the purpose of alleviating the cost

of maintaining and replicating structure data. Similarly to description provided in the

specification, page 3, lines 2-5, wherein the classification is based on whether an item in the

reference item list is in the current item list, or whether the item is in the reference item list and

the whether the contents of the item in the current item list are the same as content as contents of

the item in the reference item list. Holmes fails to explicitly communicate header information.

However, Holmes defines the information from the database to send a query to a server and

retrieve the data record matches the criteria set out in the database query and use that data record

to perform the compression method (see col.4, lines 6-26). Applicant should duly note that

communicating header information is well established in the art of communication for efficiently

transmitting a limited size data frame over a digital communication network, as evidence to

Venters (US Patent no. 5,579,316) (see col.6, lines 51) and Svanbro (col.5, lines 27-28).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the

invention was made to modify Holmes' system by transmitting the well known header

information, because such of header information would make it possible to one having ordinary

skill in the art to efficiently minimize the number of bits that would otherwise have to be

transmitted in each network data frame.

As to claim 51, Holmes discloses analogous method of comparing the data items in the

corresponding fields of the immediately preceding record with the data item in the current field.

Holmes discloses a plurality of records (col.2, lines 8-9), wherein each record includes a list of

fields, which refer as a list of item list. Stores a first record (record 1) received by a user, wherein

record 1 contains a item list (**XXX, YYY, ZZZ**), so when a second record is received **(AAA, …,**

BBB), the item list in the current record in the second record is compared with item list of the

first record. Such second record is a reference item list. If the item list does not match, as in

record 2, then the data item YYY is replaced by a token *"..."* would be identified to yield a

decompressed. So the token is sent as indication of the comparison, so called classification type,

see col.5, lines 48-57). In addition, Holmes discloses a plurality of records (col.2, lines 8-9), so

called *references items*, and a current of record (col.2, lines 11-12), which is *a current item*.

Holmes compares each data item in the current record, with each data item in the previous record

(see col.2, lines 13-14) to determine whether there is a change, which is "*comparing a current*

item list containing a plurality of current items with a reference item list containing a plurality

of reference items". Such determination of Holmes whether there is a change represents the

classification type (see col.2, lines 13-14) *"determining a type of classification based on said*

comparing of the items of the lists". Holmes uses the matching data fields to modify the current

record by a token indicating the match *(using the determined type of classification to control*

the communication and compression of the information) for the purpose of alleviating the cost

of maintaining and replicating structure data. Similarly to description provided in the

specification, page 3, lines 2-5, wherein the classification is based on whether an item in the

reference item list is in the current item list, or whether the item is in the reference item list and

the whether the contents of the item in the current item list are the same as content as contents of

the item in the reference item list. Holmes fails to explicitly communicate header information.

However, Holmes defines the information from the database to send a query to a server and

retrieve the data record matches the criteria set out in the database query and use that data record

to perform the compression method (see col.4, lines 6-26). Venters, on the other hand, discloses

an analogous system that communicates header information for efficiently transmitting a limited

size data frame over a digital communication network, as evidence to Venters (US Patent no.

5,579,316) (see col.6, lines 51-60). Therefore, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to modify Holmes' system by

transmitting the well known header information as disclosed by Venters (col.6, lines 51-60),

because such of header information would make it possible to one having ordinary skill in the art

to efficiently minimize the number of bits that would otherwise have to be transmitted in each

network data frame

As to claim 52, Holmes discloses analogous method of comparing the data items in the

corresponding fields of the immediately preceding record with the data item in the current field.

Holmes discloses a plurality of records (col.2, lines 8-9), wherein each record includes a list of

fields, which refer as a list of item list. Stores a first record (record 1) received by a user, wherein

record 1 contains an item list (**XXX, YYY, ZZZ**), so when a second record is received **(AAA, …,**

BBB), the item list in the current record in the second record is compared with item list of the

first record. Such second record is a reference item list. If the item list does not match, as in

record 2, then the data item YYY is replaced by a token **"..."** would be identified to yield a

decompressed. So the token is sent as indication of the comparison, so called classification type,

see col.5, lines 48-57. In addition, Holmes discloses a plurality of records (col.2, lines 8-9), so

called **references items**, and a current of record (col.2, lines 11-12), which is **a current item**.

Holmes compares each data item in the current record, with each data item in the previous record

(see col.2, lines 13-14) to determine whether there is a change, which is "**comparing a current**

item list containing a plurality of current items with a reference item list containing a plurality

of reference items". Such determination of Holmes represents the classification type (see col.2,

lines 13-14) *"determining a type of classification based on said comparing of the items of the*

lists". Holmes uses the matching data fields to modify the current record by a token indicating

the match *(using the determined type of classification to control the communication and*

compression of the information) for the purpose of alleviating the cost of maintaining and

replicating structure data. Similarly to description provided in the specification, page 3, lines 2-5,

wherein the classification is based on whether an item in the reference item list is in the current

item list, or whether the item is in the reference item list and the whether the contents of the item

in the current item list are the same as content as contents of the item in the reference item list.

Holmes fails to explicitly communicate header information. However, Holmes defines the

information from the database to send a query to a server and retrieve the data record matches

the criteria set out in the database query and use that data record to perform the compression

method (see col.4, lines 6-26). Venters, on the other hand, discloses an analogous system that

communicates header information for efficiently transmitting a limited size data frame over a

digital communication network, as evidence to Venters (US Patent no. 5,579,316) (see col.6,

lines 51-60). Therefore, it would have been obvious to one having ordinary skill in the art at the

time the invention was made to modify Holmes' system by transmitting the well known header

information as disclosed by Venters (col.6, lines 51-60), because such of header information

would make it possible to one having ordinary skill in the art to efficiently minimize the number

of bits that would otherwise have to be transmitted in each network data frame.

As to claims 2, 21, 33 and 42, Holmes discloses the invention as claimed. In addition Holmes

discloses the claimed "wherein the comparing determines a difference between said current item

list and said reference item list" (col.4, lines 37-50; the unmatched data items). It is well

established in the art to identify a change to one copy of a set of data by comparing a first set of

data with a second set of data and propagating only the change to the location where other copies

of that data is stored, as evidence to Holmes col.1, lines 54-57).

As to claims 3, 22, 34 and 43, Holmes discloses the invention as claimed. In addition Holmes

discloses the claimed "sending information regarding said difference from the first entity to a

second entity" (col.4, lines 40-44 difference between the unmatched items). It is well established

in the art to identify a change to one copy of a set of data by comparing a first set of data with a

second set of data and propagating only the change to the location where other copies of that data

is stored, as evidence to Holmes col.1, lines 54-57).

 As to claim 14, 15 and 30, Holmes discloses "sending information regarding a difference

between an item in said current list and a corresponding item in said reference item list" (is old

and well known in Venters (US Patent 5,579,316), col.7, lines 30-66), lines transmitting the

unmatched item based on the comparison between the item list and the reference item list; see

and "whether the item is in the reference item list".

As to claims 53-68, Holmes and Venters substantially discloses the invention as claimed. In

addition, Venters discloses the claimed "decompressing the received header information"

(col.10, lines 1-52).

Claims 69-72 are computer programs comprising instructions to perform the method of claim 1

above. They are, therefore, rejected under the same rationale.

8.   Claims 4-13, 17, 23-29, 35-39 and 44-50 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Holmes US Patent no. 5,864,860 in view of Venters (US Patent 5,579,316)

and further in view of Svanbro et al (hereinafter Svanbro") US Patent no. 6,535,925.

As to claim 4 and 25, Holmes and Venters disclose substantially the invention as claimed.

However, Holmes does not explicitly disclose the use of encoding the information regarding said

difference prior to sending said information from said first entity to said second entity. On the

other hand, Svanbro discloses the claimed feature "encoding the information regarding said

difference prior to sending said information from said first entity to said second entity" (col.5,

line 15-21, compression technique). Therefore, it would have been obvious to one having

ordinary skill in the art combine the teachings of cited references, wherein the database server,

provided therein (see Holmes' fig.1) would incorporate the use of a robust and efficient

compression of list of items, in the same conventional manner as discloses by Svanbro. One

having ordinary skill in the art would have found it obvious to utilize such a combination for the

purpose of efficiently improving effect on the compression, thereby enabling a reduction in the

amount of data to be transferred.

As to claims 6 and 27, Holmes, Venters and Svanbro substantially disclose the invention as

claimed. In addition, Svanbro discloses the claimed "wherein encoding the information

comprises encoding information regarding which item in said reference item list is not in said

current item list" col.5, line 15-21, compression technique).

As to claims 7-11 and 28, Holmes, Venters and Svanbro substantially disclose the invention as

claimed. In addition, Svanbro discloses the claimed "wherein encoding the information

comprises encoding information regarding content of at least one item in said reference item list"

col.5, line 15-21, compression technique).

As to claim12, Holmes, Venters and Svanbro substantially disclose the invention as claimed. In

addition, Svanbro discloses the claimed "wherein said information further comprises a type of

encoding" (col.5, lines 5-58).

As to claim 13, Holmes, Venters and Svanbro substantially disclose the invention as claimed. In

addition, Svanbro discloses the claimed "wherein said type of encoding comprises one of: an

insertion encoding scheme, a removal encoding scheme and a content change encoding scheme"

(col.5, lines 5-58).

As to claim 14, Holmes, Venters and Svanbro disclose the invention as claimed. In addition, Holmes discloses the claimed "sending information regarding a difference between an item in said current item list and a corresponding item in said reference item list" (col.6, lines 5-10).

As to claim 15, Holmes, Venters and Svanbro substantially disclose the invention as claimed. In addition, Holmes discloses the claimed "wherein said type of classification is based on at least one of: whether an item in said reference item list is in said current item list, whether said item is in said reference item list and whether contents of said item in said current item list are the same as contents of said item in said reference item list" (col.7, lines 24-36).

As to claim 17, Holmes, Venters and Svanbro substantially disclose the invention as claimed. In addition, Holmes discloses the claimed sending said, reference item list from a first entity to a second entity (col.5, lines 16-56).

As to claims 23-29, 35-39 and 44-50, the limitation of these have been mentioned in the rejection of claims 4-13 and 17 above. They are, therefore, rejected under the same rationale. In addition, Svanbro discloses the claimed feature "wherein said information further comprises a type of encoding" (col.5, lines 15-col.6, line 65). Therefore, it would have been obvious to one having ordinary skill in the art combine the teachings of cited references, wherein the database server, provided therein (see Holmes's fig.1) would incorporate the use of a robust and efficient compression of list of items, in the same conventional manner as discloses by Svanbro. One

having ordinary skill in the art would have found it obvious to utilize such a combination for the purpose of efficiently improving effect on the compression, thereby enabling a reduction in the amount of data to be transferred.

Remark

9.   The 112 and 101 rejection set forth in the last office action have withdrawn in lieu of the amendment filed on April 22, 2009.

10.   Applicant asserted that claim 53 recites "receiving packet header information" and "decompressing the received header information". And Applicant asserted that information that received may well have also been transmitting prior to being received. Applicant clearly admitted the information that is received may have been transmitted prior to being received. The claimed invention does mention such terminology. Therefore, it is clear based on the Applicant line of reasoning that receiving packet header information can only be decompressed after the packet header information has been transmitted. Applicant arguments are moot.

        a.   In contrast, Holmes discloses analogous method of comparing the data items in the corresponding fields of the immediately preceding record with the data item in the current field. Holmes discloses a plurality of records (col.2, lines 8-9), wherein each record includes a list of fields, which refer as a list of item list. Stores a first record (record 1) received by a user, wherein record 1 contains an item list (***XXX, YYY, ZZZ***), so when a second record is received (***AAA, …, BBB***), the item list in the current record, which is the second record is compared with item list of the first record, which is a reference item list. If the item list does not match, as in record 2, then the data item YYY is replaced by a token *"..."* would be identified to yield a

decompressed. So the token is sent as indication of the comparison, so called classification type,

see col.5, lines 48-57). Similarly to description provided in the specification, page 3, lines 2-5,

wherein the classification is based on whether an item in the reference item list is in the current

item list, or whether the item is in the reference item list and the whether the contents of the item

in the current item list are the same as content as contents of the item in the reference item list.

Holmes fails to explicitly communicate header information. However, Holmes defines the

information from the database to send a query to a server and retrieve the data record matches

the criteria set out in the database query and use that data record to perform the compression

method (see col.4, lines 6-26).

   b.   Holmes compares each data item in the current record, with each data item in the

previous record (see col.2, lines 13-14) to determine whether there is a change, which is

"*comparing a current item list containing a plurality of current items with a reference item list*

containing a plurality of reference items". Such determination of Holmes whether there is a

change represents the classification type (see col.2, lines 13-14) *"determining a type of*

classification based on said comparing of the items of the lists". Holmes uses the matching data

fields as a token indicating the match *(using the determined type of classification to control the*

communication and compression of the information), wherein the token is sent with the record

to indicate the change, see col.4, lines 47-49. Applicant should duly note that communicating

header information is well established in the art of communication for efficiently transmitting a

limited size data frame over a digital communication network, as evidence to Venters (US Patent

no. 5,579,316) (see col.6, lines 51), in order to efficiently minimize the number of bits that would

otherwise have to be transmitted in each network data frame, See col.11, lines 21-28.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN M. CORRIELUS whose telephone number is (571)272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jean M Corrielus/
Primary Examiner, Art Unit 2162

August 10, 2009